

**Amendments to the Specification**

Please replace the paragraph at page 6, line 15 to page 7, line 15 with the following amended paragraph:

Referring now to FIG. 2 in which a device 20 in a form of an otoscope in accordance with one embodiment of the present invention is shown. The otoscope includes an elongated housing 22 having a substantially hollow interior and proximal and distal ends 21 and 23. The distal end 23 of the elongated housing 22 ~~areis~~ is provided with a substantially frusto-conically shaped inner tip housing 24, that can also serve for illuminating inside the ear, and that can further be accompanied by a speculum--a distal extension which is sized for positioning within an ear canal 2 undergoing diagnosis for sterility purposes. The device 20 is connected to means for illuminating 24(not shown). As shown in FIG. 2 the means for absorbing the reflected light from the ear drum. 11 can be situated inside the hollow interior of 24. In one embodiment of the present invention the means for illuminating the ear drum is a halogen lamp, wherein the luminescence reflected on the ear drum through the inner tip housing 24. Other illuminating means may be used. In one embodiment at least one optical fiber 11 is extended from the inner tip housing 24, through the elongated housing 22 and is fanned out in the proximal end 21. An electro-optical cable 2525' is further connected to spectrometer 30 (FIG. 1). On the exterior of the elongated housing 22 may be provided a freeze button 27, which is connected to the processor 50 (FIG. 1), such that when the freeze button is pressed, it activates processor 50. In one embodiment of the present invention when the freeze button 27 is pressed, processor 50 obtains and analyzes one spectrum of

reflected light provided at the time of activating. In another embodiment of the present invention when the freeze button 27 is pressed, processor 50 (FIG. 1) obtains and analyzes more than one spectrum of reflected light provided at the time of activating and at a followed period of time as been predefined. A device such as a freeze button need not be used.

Please replace the paragraph at page 7, line 24 to page 8, line 7 with the following amended paragraph:

Referring now to FIG. 3 in which a processing unit 100 is shown. In front of processing unit 100 there is an LCD panel indicated as 80 and a keyboard indicated as 70 having a set of keys, for example, twelve to sixteen keys for entering patient I/D and other data. Inside processing unit 100 there is a spectrometer 30 (FIG. 1), which is connected to, for example, one electro-optical cable 2525' through a connector 25a on the exterior of the processing unit 100. In another embodiment other methods of analyzing light may be used. In yet, another embodiment other data entry devices may be used.

Please replace the paragraph at page 8, lines 8 to 16 with the following amended paragraph:

In one embodiment, spectrometer 30 receives the reflected light from the ear, and produces an electrical signal. The spectrometer is provided with a linear photodiode array and a diffraction grating. The electro-optical cable 2525' delivers the light to an entrance slit of the spectrometer. Inside the spectrometer there is a linear array having 256, 512, 1024 or 2048 photoelements, each representing a different spectral channel. Other numbers of photo elements may be used. In one

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embodiment the output of the spectrometer is an electrical signal (in a form of a video signal), which carries information about the light intensity in each spectral channel.